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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,997	11/19/2003	Mark Levine	P706601US1	7584

24938 7590 02/15/2006

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EXAMINER
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WEBB, TIFFANY LOUISE

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/716,997	LEVINE, MARK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tiffany L. Webb	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/19/2003</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the one-way clutch, mechanical release, electro-mechanical release, supporting mesh, supporting net, and open cell foam padding must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 60. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: in line 11 "inflater" is misspelled and should be changed to "inflator." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 7, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. Claim 1 recites the limitation "said vehicle's side windows" in line 6. Examiner suggests changing to "side windows of said vehicle." There is insufficient antecedent basis for this limitation in the claim.

7. Claim 2 is unclear because the claim states that a lower edge of the airnet extends above and below the side windows of a vehicle. It is unclear how a "lower edge" can be in two places. The examiner suggests clarifying the claim.

8. Claim 3 recites the limitation "said retention cable tensioner" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests changing to "said cable tensioner."

9. Claim 7 recites the limitation "said one-way clutch further comprises" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests changing to "a one-way clutch is used and further comprises."

10. Claim 10 is unclear because it has already been established that the restraint device is an inflatable net, therefore it is unclear why there is a need for a supporting net on an existing net.

### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1 and 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirk et al (US 6,168,193). Regarding claim 1, Shirk et al. discloses having an

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cushioning and restraint device (34) for a vehicle configured to be inflated and deployed on a side of a vehicle between a front pillar and a rear pillar of the vehicle (see Figure 1) via an inflator (24) during a side impact accident, a rollover accident, or a side impact and rollover accident (col 1, lines 5-8). The airnet comprises: an inflatable net (34) connected to an inflator (24), the inflatable net having a top edge (82) secured at a point above the side window and between the front and rear pillars (see Figure 1), a lower edge (80) extending below the side window and between the front and rear pillar (see Figure 1); a cable tensioner (50 and 52) connected to the inflator; and a retention cable (54) anchored at the front pillar and the rear pillar (74 and 78) and fed through guides near the lower edge of the inflatable net and engaged by the cable tensioner (col 2, lines 41-43). Regarding claim 3, Shirk et al. further discloses having a cable tensioner (52) incorporating a one-way clutch type mechanism (166) that maintains tension until released (col. 3, lines 59-67). Regarding claims 4-7, Shirk et al. discloses the clutch mechanism having a mechanical release mechanism (rack, pinion and pawl are mechanical release items: 104, 166), further the clutch mechanism comprises an electro-mechanical release mechanism (col. 4, lines 33-46).

13. Claims 1 and 3-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Heigl et al. (US 2002/0084633). Regarding claim 1, Heigl et al. discloses having an cushioning and restraint device (10) for a vehicle configured to be inflated and deployed on a side of a vehicle between a front pillar and a rear pillar of the vehicle (see Figure 1) via an inflator (20) during a side impact accident, a rollover accident, or a side impact and rollover accident. The airnet comprises: an inflatable net (12) connected to an

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inflator (20), the inflatable net having a top edge (see Figure 1)) secured at a point above the side window and between the front and rear pillars (see Figure 1), a lower edge (see Figure 1) extending below the side window and between the front and rear pillar (see Figure 1); a cable tensioner (28 and 226) connected to the inflator; and a retention cable (24) anchored at the front pillar and the rear pillar (at 26 and 28) and fed through guides (30) near the lower edge of the inflatable net and engaged by the cable tensioner. Regarding claim 3, Heigl et al. further discloses having a cable tensioner (28 and 226) incorporating a one-way clutch type mechanism (see Figures 5a-5b) that maintains tension until released (col.4, lines 44-45). Regarding claims 4-7, Heigl et al. discloses the clutch mechanism (see Figures 5a-5b) having a mechanical release mechanism (col. 4, lines 59-67), further the clutch mechanism comprises an electro-mechanical release mechanism (a simple time switch is used: col. 2, lines 2-4).

### ***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heigl et al. or Shirk et al. in view of Levi (US 6,510,717). Heigl et al. and Shirk et al. are discussed above and fail to disclose using a retention cable being made of poly(p-phenyleneterephthalamide). Levi discloses having a woven strap made out of Kevlar, which is poly(p-phenyleneterephthalamide), to improve strength qualities of the strap. It

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would have been obvious to one of ordinary skill in the art to make the retention cables of Heigl et al. and Shirk et al. out of Kevlar in view of Levi in order to provide improved strength when tensioning the airbag during deployment.

16. Claims 9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Heigl et al. or Shirk et al. in view of Breed et al. (US 5,746,446). Heigl et al. and Shirk et al. are discussed above and fail to disclose having a supporting mesh or net on the inflatable net. Breed et al. discloses an inflatable cushion having a reinforcement layer of a net material, and by definition, mesh is a net type material (col.15, lines 1-2). It is well known that inflatable cushions for vehicles can be made of net or mesh material, as Breed et al. shows. Therefore in view of the teaching of Breed, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the inflatable cushion of Heigl et al. or Shirk et al. such that it comprised a net or mesh as claimed, so as to have an improved inflatable cushion that did not leak, rip, etc.

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heigl et al. or Shirk et al. in view of Tschaeschke (US 6,332,628). Heigl et al. and Shirk et al. are discussed above and fail to disclose incorporating open cell foam padding with the airnet cushion. Tschaeschke discloses using foam in an inflatable cushion for vehicles (col. 5, lines 7-10). In view of the teachings of Tschaeschke, it would have been obvious to one of ordinary skill in the art to add foam to the airbag systems of Heigl et al. and Shirk et al. in order to provide extra cushioning during rollover or side impact situations.

### ***Conclusion***

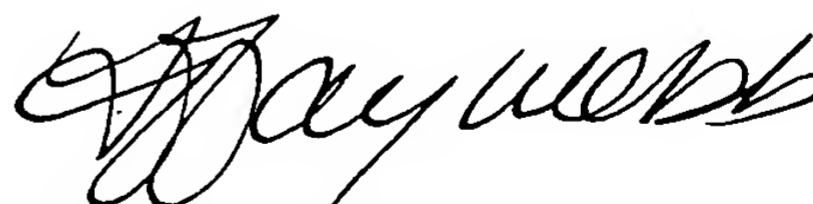
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18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are all side curtain airbag devices including tethers: Sutherland et al. (US 6,135,497), Robins et al. (US 5,865,462), Wallner et al. (US 6,308,982), Sinnhuber (US 6,158,767), Wallner et al (US 6,176,515), Brannon et al. (US 6,505,853), and Thomas et al. (US 6,733,035).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany L. Webb whose telephone number is 571-272-2797. The examiner can normally be reached on 8-4:30 M-F.

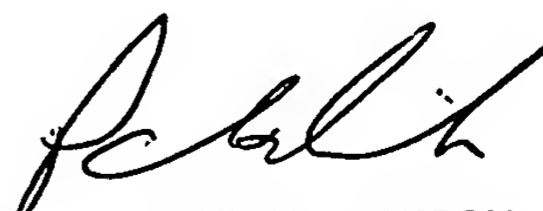
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tiffany L Webb  
Examiner  
Art Unit 3616

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